

Science Toolkit: Grade 3 Objective 1.D.2.b

Standard 1.0 Skills and Processes

Topic D. Technology

Indicator 2. Investigate a variety of mechanical systems and analyze the relationship among the parts.

Objective b. Explain that something may not work as well (or at all) if a part of it is missing, broken, worn out, mismatched, or misconnected.

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Science Grade 3 Indicator 1.D.2

Designed Systems

Hands-on experience with a variety of mechanical systems should increase. Classrooms can have "take-apart" stations where a variety of familiar hardware devices can be taken apart (and perhaps put back together) with hand tools. Devices that are commonly purchased disassembled can be provided, along with assembly instructions, to emphasize the importance of the proper arrangement of parts (and incidentally, the importance of language-arts skills, which are needed to read and follow instructions).

Introduction

Science Grade 3 Standard 1

Children's strategies for finding out more and more about their surroundings improve as they gain experience in conducting simple investigations of their own and working in small groups. They should be encouraged to observe more and more carefully, measure things with increasing accuracy, record data clearly in logs and journals, and communicate their results in charts and simple graphs as well as in prose. Class discussions of the procedures and findings can provide the beginnings of scientific argument and debate. By the end of Grade 5, children will have had multiple experiences applying and practicing all of the listed science skills and processes across the concept areas.